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ABSTRACT

The College Opportunity Grant (COG) program was established by the California legislature in 1968 and was intended to provide monetary grants to financially needy students, primarily from ethnic mincrities, to assist them while attending college. This paper contains: (1) a side-by-side description of the characteristics of the 1969 and 1970 applicants and grant recipients: numbers, reasons for ineligibility, ethnic backgrounds, types of institutions enrolled, and anticipated majors of COG winners; (2) an evaluation of the success of the 1969 program based on an analysis of the college performance of that year's winners; (3) a discussion and appraisal of the program as it now stands; and (4) a summary and recommendations. (AF)

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THE COLLEGE OPPORTUNITY GRANT PROGRAM

OF

THE CALIFORNIA STATE SCHOLARSHIP AND LOAN COMMISSION

A report on and evaluation of the 1969 and 1970 COG Selection Procedures

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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1. INTRODUCTION

This is the second report on the College Opportunity Grant (COG) program which is administered by the California State Scholarship and Loan Commission.

The review of the first year's experience[1] with the program recounted its background, described the elements used in the selection process, went over the procedure and rationale followed in financial need analysis, presented a qualitative appraisal of the scoring methods, and summarized the results obtained.

The methods of determining eligibility have not been changed in this, the second year in the life of the program, so this report will not concern itself with reciting details which have already been covered fully.

Those interested in having complete background information may secure the document cited above from the Commission. For the reader who is unfamiliar with COG, the following summary may be helpful.

Summary

The COG program was established by the legislature of the State of California and was intended to provide monetary grants

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[1] Klingelhofer, E.L., A report on and evaluation of the 1969 COG Selection Procedures, California State Scholarship and Loan Commission, November 13, 1969, xeroxed.

to financially needy students, primarily from ethnic minorities, to assist them while attending college. The legislation specified that the two-year community college was to be the destination of the student although the Commission was given the authority to make some exceptions to this stipulation. The legislation also decreed that the conventional methods of selection, which rely heavily on grades and tests, were to be modified. To comply with this provision of the law, a quantitative selection procedure was devised which combined the applicant's previous academic record with subjective statements made by or about him. Since these various elements will be referred to later, they are sketched in Table 1 (page 3).

The legislation specified that only first-time college students could receive grants, that they had to be U.S. citizens and legal residents of the State of California, and that they could receive the grants only to attend an accredited California institution.

Financial need had to be demonstrated and was assessed by modifying the College Scholarship Service Tables so that awards for low-income families were somewhat more generous than would be true of CSS allocations while awards for higher income families would be smaller. A family income in excess of $10,000 virtually ruled out the applicant. In calculating the amount of a grant to be awarded, a summer earning's figure was included in and for the 1970 recipients.

The next four sections contain a side-by-side description of the characteristics, 1969 and 1970 applicants and recipients,

TABLE 1

ELEMENTS AND WEIGHTS USED IN COG SELECTION PROCESS

APPLICATION PART	QUESTION	GENERAL NATURE OR CONTENT	WEIGHT	SCORER
1	12	How do you feel about your grades in high school? (Series of alternatives provided)	00-05	Clerical
1	14	Why do you want to go to college?	00-10	Professional
1	14	Why do you need a grant?	00-10	Professional
III or IV	3-4 3	How does his high school grades reflect his potential? How do you rate his chances for successful performance in college? (Series of alternatives provided)	00-05	Clerical
III or IV	8 5	What characteristics or behaviors did he exhibit at school? (Series of alternatives provided)	00-10	Clerical
III or IV	9 6	Supply additional that would help us to assess the applicant. (importance of statement stressed)	00-10	Professional
High School Transcript			20-35	Clerical
Rater Subjective Impression			00-10	Professional

an evaluation of the success of the 1969 program based on an analysis of the college performance of that year's winners, a discussion and appraisal of the program as it now stands, and a summary and recommendations.

2. CHARACTERISTICS OF APPLICANTS AND RECIPIENTS

Some of the characteristics of the 1969 and 1970 programs are presented in this section. Table 2 (page 6) reveals that the number of applicants in 1970 was almost double that in 1969, and that the incidence of incomplete applications was materially lower in 1970, this no doubt because of the fact that the time pressures resulting from late funding in 1969 were absent this year.

With the increase in number of applicants, the competition for grants became keener and the nature of this is reflected in the fact that in 1969 a score of 64 qualified a recipient; in 1970 a winner had to have a score of 72. An alternate winner in 1969 (and all but 6 of the 1969 alternates received grants) qualified with a score of 59; in 1970 an alternate had to have a score of 67 and 188 of them were not awarded grants. The higher qualifying score is partly because of the influence of the high school grade point average; in 1969 the mean grade point average of winners was 2.7; in 1970 it had gone to a 3.0. However, this increase is only proportionate (37.5% of the point increase in a winner score is attributable to HSGPA and this corresponds closely to the 36.8% of the total weight in scoring, which is carried by the grade point average).

The fact seems to be that the increase in number of applicants has sharply improved the across-the-board quality of winners, and this is reflected not only in their academic achievements, but their subjective qualities as well.

TABLE 2

STATUS OF APPLICANTS FOR THE COG PROGRAM
CALIFORNIA STATE SCHOLARSHIP AND LOAN COMMISSION
1969 and 1970

	1969	1970
Total applications	2,156	4,092
Total winners	1,000	1,000
Reason for ineligibility		
Low score	202	1,651
Non resident	16	37
Prior college	29	39
4-year redirects No need at JC	16	28
Ineligible to attend college	14	17
No need	293	744
Incomplete on late applications	319	61
Self withdrawals	--	3
Unaccredited college	--	2
TOTAL INELIGIBLE	889	2,582

The selection procedures continue to meet the stipulation that need and membership in an ethnic minority be essential characteristics of the COG program. The median family income, before deductions in 1970, was $5,625; in 1969 it was $5,100. These figures fall close to the minimal or poverty income level in California for the typical five-member family. In 1969 the average grant amount was $949; in 1970 it had risen slightly to $956. The ethnic census of winners for 1969 and 1970 is given in Table 3 (below) and shows that ethnic minorities account for 76% of the winners in both years. The distribution of grants over ethnic groups has remained fairly stable with the slight percentage decline in black winners in 1970 being compensated for by increases in Filipino and Oriental-American recipients.

TABLE 3

ETHNIC GROUP MEMBERSHIP OF COG WINNERS
1969 & 1970

Ethnic Group	Percent of Winners	
	1969	1970
Black, negro, Afro-American	26	22
Brown, chicano, Mexican-American	39	39
Yellow, Oriental, Chinese or Japanese-American	7	8
White, caucasian	24	24
Filipino	2	4
Indian	1	1
Mixed/No Response	1	2
TOTAL	100	100

With the increase in numbers of applicants and the consequently higher qualifications of eligible recipients, there was more pressure for attendance at four-year institutions. The percentages of recipients enrolling in each type of college or university is given in Table 4 (below) which reflects the fact that while the overwhelming majority of recipients in 1970, as in 1969, attended community colleges, there had been some increase in the number of recipients who, after careful and rigorous review, had successfully argued their case for attendance at a four-year institution.

TABLE 4

PERCENT OF COG RECIPIENTS ENROLLING
IN VARIOUS TYPES OF INSTITUTIONS
1969 & 1970

	Percent	
Type of Institution	1969	1970
Community college	94	85
State college	3	7
University of California	1	4
Independent colleges	2	4
TOTAL	100	100

The anticipated field of major of recipients are given in Table 5 (page 9). Of particular interest here is the sub-

stantial increase in interest in science and mathematics fields in 1970 over 1969 and the relatively low percent in both years of students who are undecided about what major to pursue.

TABLE 5

ANTICIPATED MAJOR FIELDS OF COG RECIPIENTS
1969 & 1970

	Percent	
Anticipated Major	1969	1970
Engineering	7	5
Sciences and math (Incl. Pre med)	8	20
Education	12	12
Social Sciences	40	39
Humanities	12	14
Others	12	4
Undecided	9	7
TOTAL	100	101

This sharp growth in number of science-mathematics majors may partly be an outgrowth of the improvement in the average level of academic achievement of recipients and partly a reflection of the increasing determination of ethnic minority students not to be tracked into traditional areas.

Another interesting statistic was found in the sex distribution of recipients. In 1969 about 42% of the recipients were male; this year only 34% of the winners were men. While

the reasons for this are doubtless manifold, the tendency for women to earn higher grades in high school, the hypothesized shading of counselor recommendations to favor girls, and the low rate of college attendance among economically disadvantaged females (which COG may importantly counteract) may all contribute to this desproportionality.

While not bearing directly on the results of the selection process, it is appropriate to close this section of the report by noting the phenomenal cooperativeness of COG recipients. Much of the information summarized above results from a questionnaire survey of winners. In 1969 there was a 93% return of questionnaires; this year, 98% of the students responded to our request for information. We believe that this eloquently reveals the sense of responsibility and maturity of these talented, deserving and needy young men and women.

3. THE SUCCESS OF THE 1969 SELECTION PROCESS

There were one thousand COG winners in 1969. How effective was the process which selected these recipients from the 2,156 applicants? To answer this question we have developed three different sets of information. The first is a simple count of the number of COG recipients who continued their education into the fall of 1970--a matter of persistence. The second involves correlating the various elements used in the selection process with the grade point average earned in college studies and the third assesses the extent to which the various selection variables differentiate between the students grouped according to their status with regard to college attendance in the fall of 1970. Each of these analyses will be explained and evaluated in detail below.

Persistence

Of the 980 students who won grants in the fall of 1969 and actually enrolled in college, 720 qualified for renewals of their grants in 1970. Another 31 students did not have financial need and 12 were on military leave of absence. Sixty students did not reapply and 35 withdrew from the program. In addition, another 135 students dropped out during the 1969 academic year for a variety of reasons. The actual number of students eligible to continue and continuing in college would seem to be at least 750 (720 & 31) of the 980 who

actually started college the year preceding. This denotes a minimal persistence rate of 77%. We are unable to furnish a firm figure for comparison but estimates from informed junior college officials place the junior college rate at no more than 50% from one academic year to the next. The comparable figure for freshmen in California state colleges is about 55%, so it is safe to conclude that COG recipients are significantly more likely to continue their education than the typical beginning student in community or state colleges in California.

Predictive Validity of the Elements in the Selection Process

The various elements used in the selection process were correlated with one another and with the college grade point average earned by recipients. The resulting correlations provided the grist for a step-wise multiple regression analysis. The intercorrelational matrix and the results of the regression analysis are presented in Table 6 (page 13).

The matrix of intercorrelations reveals that the high school grade point average is the best single predictor of college achievement for COG recipients, surpassing even the composite score in overall efficiency. The elements which were clerically scored (variables 4, 5 and 6) also had useful levels of validity but those which were professionally scored (items 2, 3, 7 and 8) bore essentially no relationship to the criterion and did not add significantly to the magnitude of the multiple correlation. The selection of COG recipients, given the data currently secured and using college grade

TABLE 6

INTERCORRELATIONAL MATRIX AND MULTIPLE REGRESSION ANALYSIS
OF VARIABLES USED IN SELECTION OF 1969 COG RECIPIENTS

Variable	Intercorrelations									
	1	2	3	4	5	6	7	8	9	10
. HS GPA	1.000	-.014	-.036	.377	.422	.320	.019	.222	.730	.419
. Pt. L, Qn. 14A Why do you want to go to college?		1.000	.523	.040	-.062	-.023	.243	.215	.463	.086
. Pt. I, Qn. 14B Why do you need a grant?			1.000	.051	-.026	-.074	.237	.258	.475	.080
. Pt. I, Qn. 12 How do you feel about your grades in HS?				1.000	.173	.125	-.012	.043	.405	.236
. Pt. III, Qn. 3-4 Counselor Appraisal of Potential					1.000	.239	-.064	.058	.384	.220
. Pt. III, Qn. 8 Counselor rating of characteristics						1.000	.109	.089	.401	.161
. Pt. III, Qn. 9 Counselor's open statement							1.000	.511	.436	.035
. Rater's points								1.000	.545	.111
. Total score (Sum of 1-8 above)									1.000	.384
. College GPA (Criterion)										1.000

REGRESSION ANALYSIS

R10 - 1,2,3,4,5,6,7,8 = .443

Variable	Significance Level
1	<.01
2	.13
3	.13
4	.02
5	.17
6	.43
7	.91
8	.80

point average as a criterion, could be done as efficiently using only two indices--the high school grade point average and the clerically scored responses to question 12, Part I which asks the applicant to indicate his feelings about his grades in high school.

It is worth noting that the magnitude of the correlations obtained is usefully high and that the prior academic achievement of COG applicants is a good gauge of their later accomplishments in college. In fact, since the high school grade figure used in these analyses is the converted one--that is, any grade point average lower than 2.0 was rounded to a 2.0 and any higher than a 3.5 was lowered to that figure in the scoring procedures, it is safe to assert that using an unadjusted HSGPA as a predictor would have the effect of increasing its validity somewhat since the arbitrary restriction in the range of the predictor would be removed.

The disappointing lack of validity found to characterize the subjective judgments of the professional scorers needs comment. There is some evidence to indicate that the scorers agree usefully in their judgments of the statements they were asked to evaluate and in their overall estimates of the quality of the applicant. However, it is also true that the average scores assigned by the raters to the various questions were badly skewed and leptokurtic. The fact of the matter is that the students who were awarded grants had persevered in high school in spite of serious handicaps; their need had already

been established because the financial need analysis preceded the evaluation by professional scorers. These two facts alone probably conspired to produce ratings which could not adequately differentiate between individuals, at least in terms of making useful forecasts about their performance in college courses. If the professional scorers are to continue to be used, some major re-evaluation of the scoring procedures will be necessary for them to make any significant contribution to the selection process.

Capacity of the Predictor Variables to Differentiate Between Groups of Recipients

For purposes of this analysis the total group of winners was broken into five subgroups as follows:

Group 1 - Those winners in good academic standing (2.0 GPA or better in college)

Group 2 - Those winners eligible to continue but on academic probation

Group 3 - Those winners taking leaves of absence

Group 4 - Those winners who dropped out voluntarily for any reason

Group 5 - Those winners who were disqualified for academic reasons

The sampling distribution of means for each of the variables over the several groups was assessed using simple analysis of variance. The means of each group and the combined means, the appropriate mean square values, the resulting F-value and its probability are all entered in Table 7

(page 17). It will be seen that, as in the correlational analysis, only high school grade point average, the applicant's statement about his high school performance (variable 4), and the total score on the application differentiate reliably between the groups. Students in good standing had significantly better marks in high school, had better insight into their own secondary school performance, and made a higher total score on the application than did any of the other groups. The other groups could not be effectively differentiated according to any patterning or ordering of mean scores on any of the variables, although the group which voluntarily withdrew does present a somewhat higher total score than the three remaining groups.

Inspection of the table of means will testify that the professional scorers tended to assign consistently high scores to those aspects of the total application for which they were responsible. As already indicated, part of this is to be attributed to the fact that need had already been established before the scorers evaluated the application. However, the statements of the counselors also received extremely high marks and this probably reflects the ubiquitousness of the halo effect. The scorers assigned unusably high scores to counselor judgments which were laudatory and indiscriminate.

TABLE 7

TABLE OF MEANS AND SIMPLE ANALYSIS OF VARIANCE OF VARIABLES USED IN SELECTION OF 1969 COG RECIPIENTS

Variable	Group 1 Good Stand	Gp. 2 Prob.	3 LOA	4 W/D	5 Disq.	Combined	MS Between GS	MS Within GS	F	Pub.
No. of Students	554	154	32	243	17	1000	df=4	df=995		
HSGPA	2.81	2.51	2.48	2.66	2.48	2.71	87.9	1.8	48.8	<.01
Part I Qn. 14A	7.17	6.84	7.41	7.08	7.24	7.10	3.5	4.4	.8	NS
Part I Qn. 14B	6.51	6.23	6.63	6.70	6.65	6.52	5.3	51.5	.1	NS
Part I Qn. 12	3.40	3.08	2.78	3.19	3.12	3.28	6.1	1.0	6.1	<.01
Part III Qn. 3 & 4	4.29	3.75	3.72	4.00	4.00	4.11	11.4	11.6	1.0	NS
Part III Qn. 8	6.11	5.79	5.28	5.81	5.47	5.95	10.3	24.9	.4	NS
Part III Qn. 9	8.06	7.77	8.22	7.86	7.94	7.97	3.7	28.4	.1	NS
Rater Points	8.62	8.34	8.59	8.44	8.24	8.53	3.4	17.8	.2	NS
Total Points	72.41	67.25	67.59	70.02	67.47	70.80	1011.0	54.3	18.6	<.01

4. DISCUSSION AND APPRAISAL

The preceding three sections of this report reveal that the COG program is attracting a large number of applicants from the minority/poor segments of the California population. A high proportion of the applicants present outstanding records of achievement in secondary schhol and the number of high-achieving applicants is bound to increase as the program becomes known to counselors. It seems clear that the program is reaching the targeted groups--the substantial numbers of minority recipients and the below poverty level median family income testify to this. It is also clear that the COG program as it is now funded does no more than scratch the surface of the need. For example, the typical 1969 winner would have been half way down on the alternate list in 1970. If the number of applications for the 1971 program increases by another 2,000 (a conservative estimate when one considers the growing interest of ethnic minority students in pursuing higher education, wider knowledge of COG, and the increasing level of unemployment which will have the melancholy consequence of making more students financially eligible) the typical 1969 winner probably would not even be an alternate and the 1970 winner would be much less likely to receive a grant. The economically disadvantaged student, especially the woman from an ethnic minority group, simply does not have access to the conventional sources of assistance and ends by being neglected in the search

for funds. There are substantial reasons for this which have been estensively documented elsewhere and will not be repeated here.[2] The point is that the COG program, because of the pressure of numbers, is being transformed into a conventional aid program relying on traditional indicators of academic promise. Only an expansion of the resources available to the program or a significant modification in its selection procedures will ward off this transformation. While one cannot question the need or the qualifications of the students who would stand to win grants if the program were maintained at its present level, the experience with 1969 recipients clearly reveals that students with adequate (as opposed to exemplary) high school records are able to perform extremely well in the collegiate setting and to manifest admirably high persistence rates. The door to educational opportunity for these kinds of students should not be allowed to close.

The validity of the selection procedures followed is borne out by experience of the 1969 recipients. The mean college GPA earned by 1969 winners was 2.32, and falls about 4/10 of a grade point below their average achievement in secondary school. This discrepancy corresponds to the one observed to characterize high school and college performance. About three-quarters of the COG students have pursued their higher education into the second year which is a survival-persistence rate considerably higher than the

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[2] c.f. Knoell, Dorothy, People Who Need College, Washington, AAJC, 1970 and Financing Equal Opportunity in Higher Education, New York, CEEB, 1970

one usually seen in the public segments of higher education in California.

While the selection process is a valid one and the relationship between some of the elements used and success as measured by achievement or persistence is usefully close, it is also true that there are some aspects of the selection procedure which need to be reviewed carefully. Those parts of the screening process which have been left to professional readers do not contribute significantly to the precision of selection and the procedures followed there must be reviewed carefully. In view of the fact that the clerical assessment of some parts of the application has been found to be considerably more useful than the judgments of professionals, a restructuring of the scoring procedures may enable the Commission's clerical staff to render useful judgments in areas now assessed with dubious utility by other scorers.

In addition to revising scoring procedures and protocols, some serious thought should be given to the elements used in the process and the weights assigned to them. While we are not prepared at this time to suggest alternatives, some experimentation with selection procedures within the total program context would permit this problem to be approached empirically with consequent modification and refinement in the elements considered in selection of recipients. Small groups of individuals selected by alternative means could be piloted in the 1971 program to provide the basis for revised selection strategies.

5. SUMMARY AND RECOMMENDATIONS

The preceding sections of this report have demonstrated that the COG program of the California State Scholarship and Loan Commission has succeeded in reaching significant numbers of minority/poor youth. The size of applicant population has doubled in a period of one year, this partly reflecting an easing of the time pressures which characterized the first year's operation. However, it also reveals the magnitude of the need which the program is aimed at ameliorating.

The procedures used in selection have been found to be generally valid. The survival and persistence rate of COG winners is high and the correlations of the scores used in selection to actual achievement in college are somewhat larger than is true for predictors of college achievement generally. Some of the individual elements used in selection apparently have little or no value in the process, however, and these parts of the process probably need to be modified or excised.

With these results in mind, the following recommendations are offered for the consideration of the College Opportunity Grant Advisory Group and the Commission.

1. In view of the demonstrated need for the COG program as reflected in the rapidly growing quality and quantity of applications, the size of the program should be increased substantially. A three-fold increase in the number of

new awards could be absorbed with no decline in talent or promise of recipients.

2. Those aspects of the application which are professionally scored should be reviewed carefully in light of the evidence that these data contribute little or nothing to the validity of the selection process. In this connection, three complementary steps are advocated:

   (2.1) Current scoring standards should be examined and alternative methods developed which will differentiate more effectively among applicants and which can be used with greater precision by raters.

   (2.2) The possibility of using Commission clerical staff in scoring the subjective aspects of the application should be seriously considered. (The ability of the staff to carry on this sort of assessment procedure is recorded in the demonstrated predictive validity of the elements which they already evaluate)

   (2.3) A limited amount of experimentation should be carried on as a way of working toward the development of new methods of selection. As an initial step in this direction, it is advocated that a group of perhaps 100 applicants be randomly selected for receipt of grants who satisfy conditions of financial need only. This will permit an uncontaminated evaluation of all of the elements used in selection and may open the way to the introduction of new or the reordering or reweighting of existing scores.

3. The provisions under which a winner may apply his grant at a four-year institution should be liberalized. While a larger number of first year recipients was permitted to attend a four-year institution in 1970, the problem of making these determinations is still one of the most difficult and aggravating ones in the whole COG program and it represents an intolerable constraint on the individual's

freedom of choice.

4. The Commission should validate the 1970 selection program and continue to study the progress of the 1969 recipients, both in terms of their persistence and their achievements.

5. The Commission should work on the outreach of the program by utilizing the means suggested in last year's report. Some steps have been taken but more remains to be done.